

The Orchard Garden Hotel, San Francisco, California

Building Green, Green Hotels

San Francisco's first truly eco-friendly hotel is "green" from the ground floor to the rooftop.

The Orchard Garden Hotel was the first California hotel awarded LEED (Leadership in Energy & Environmental Design) certification by the U.S. Green Building Council. The Orchard Garden is the third hotel in the U.S. and fourth hotel in the world with this certification.

The Orchard Garden achieved LEED certification in part with its effective building envelope and core system. The building envelope helps reduce energy consumption through its high albedo (ability to reflect the sun's rays) roof coating, well insulated exterior walls, and effective use of daylighting (window placement to allow more natural light in during the day, eliminating the need to turn on a light switch). Green and high albedo materials constitute more than 75% of the roof area; this lowers the amount of energy needed to cool the building. The hotel has daylighting in more than 82% of the occupied areas.



The Orchard Garden Hotel in San Francisco (pictured above) saves an estimated 20% of their energy bill yearly from energy efficient procedures.

Business Snapshot

56,000-square foot "green hotel" in downtown San Francisco with 86 guest rooms

Actions to Build Green & Save Energy

- Installed a cardkey system that starts or stops power to a room when the guest enters or leaves; projected to decrease energy use by 20%
- Uses washable linens and curtains instead of "dry clean only" textiles that are less costly than dry cleaning
- Low flow bathroom toilets and showers and faucet aerators help conserve water
- Uses environmentally preferable cleaning products instead of chemical alternatives

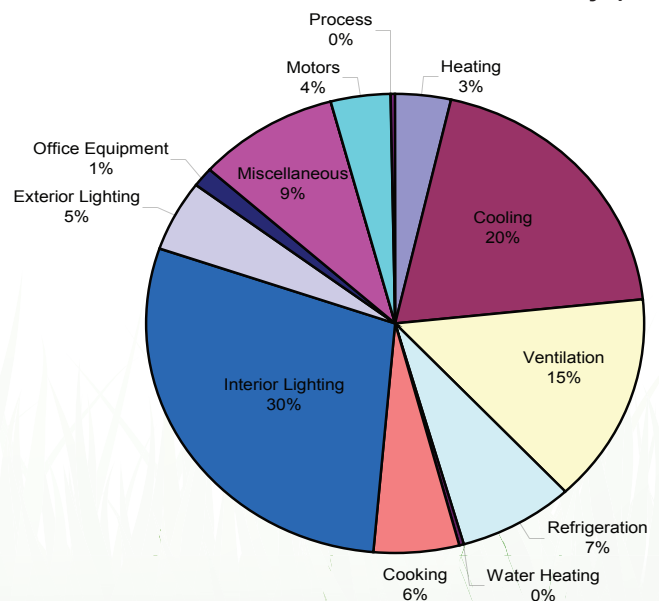
Construction Cost: \$21 million

(excluding restaurant costs; hotel was able to achieve LEED certification with a 0.17% or \$35,000 premium)

Estimated Yearly Savings: 20% of energy bill

Snapshot of Typical Lodging Energy Uses

Interior lighting makes up the largest portion of energy use in a typical California lodging facility at 30%, followed by cooling at 20%. This data is from the California Commercial End Use Survey (2006).



What Action Did the Orchard Garden Hotel Take to Save Energy?

The Orchard Garden implemented an innovative room energy control system to reduce room energy consumption. The room key card controls the lighting and air conditioning in a guest room. When exiting the room, the guest takes the key card, automatically 'turning off' the entire room (except for an outlet that guests can use to charge various battery-powered devices). This type of system is already in widespread use in Europe and Asia and is projected to reduce energy costs by up to 20%.

What Actions Did the Orchard Garden Hotel Take to Conserve Resources?

Resource conservation practices increase cost savings. The Orchard Garden Hotel uses washable linens and curtains instead of "dry clean only" textiles and saves on dry cleaning bills. The general manager projects these savings to be between 10-20%. The Hotel achieved reductions in water use, and water bills, by installing low-flow plumbing fixtures.

What Actions Did the Orchard Garden Hotel Take to Reduce Toxic Cleaning Product Use?

Part of the Orchard Garden's strategy to incorporate healthy interiors was to switch their industrial cleaning products to fruit acid based natural cleaning products. The housekeeping staff was skeptical. They thought the new products would impact the quality of their work and would require additional cleaning time. After a six week trial period, however, staff acknowledged that natural cleaning products clean just as well as bleach. As an added bonus, the natural products reduced dry skin and respiratory difficulties commonly associated with chemical based cleaning products.

The Orchard Garden Hotel continues to reap the benefits from going green. Compared to traditional structures, the Orchard Garden has lower operating costs and increased energy savings. The surroundings and environment in the hotel have led to happier and healthier guests and employees. Achieving LEED certified has engaged the public and created media and outreach opportunities.



Photo Credit: SanFrancisco.com

The Orchard Garden Hotel, (pictured above), General Manager Stefan Mühle cites research by the Environmental Protection Agency showing that businesses can save about 50 cents per square foot by cutting energy use by 30 percent; this can represent a savings of \$50,000 or more in a five-year lease on 20,000 square feet.

"People are still surprised that being green and enjoying luxury aren't mutually exclusive anymore."

**-Stefan Mühle
Orchard Garden General Manager**

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